

X7SBE Motherboard Battery Replacement for DCP-2000 / DCP-2K4 / ShowVault-3 / ShowVault-4

For Authorized Doremi Repair Centers

Version 1.1

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1 Introduction

The X7SBE SuperMicro motherboard has a coin type battery (Model Number CR2032) to back-up the power, which supplies the BIOS CMOS memory used for custom settings. If the power supply of this CMOS memory is lost, the CMOS is erased and the BIOS settings, including the date, revert back to the default. They will need to be set again for proper unit functionality.

This manual will guide you through the steps necessary to replace the battery as well as the steps necessary to reconfigure the BIOS.

Note: The replacement CR2032 3V Lithium Coin Battery is not provided by Doremi but can be sourced locally.

1.1 Contact

If in need of help or assistance, please contact your nearest Doremi Labs Technical Support at:

USA

- 24/7 Technical Support Line: +1-866-484-4004
- Technical Support Email: support@doremicinema.com

Europe

- 24/7 Technical Support Line: +33 (0) 492-952-847
- Technical Support Link: http://support.doremitechno.org/ticketing

Japan

- Technical Support Line: +044-966-4855
- Technical Support Email: support@doremilabs.co.jp

Australia ~ China ~ India ~ Indonesia ~ Korea ~ Malaysia ~ New Zealand ~ Philippines ~ Singapore ~ Taiwan ~ Thailand

Technical Support Email: supportasia@doremilabs.com

2 What Happens When the Motherboard Battery is Depleted

For Doremi Servers, there is minimal damage when a motherboard battery is depleted.

- If the unit is on or in stand-by mode while the battery transits from a working status to a
 depleted status, there is no functionality issue. The unit will continue to work normally until the
 power is disconnected from the unit.
- If the power cords are not plugged in and the battery goes below the working threshold, when booting the unit, there will be 2 error messages, as shown in Figure 1.

```
Phoenix TrustedCore (tm) Server
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Supermicro X7SB4/X7SBE BIOS Rev 1.1c
2048M System RAM Passed
6144 KB L2 Cache
System BIOS shadowed
Uideo BIOS shadowed
Uideo BIOS shadowed
Fixed Disk 0: Hitachi HDT725050ULA360
Fixed Disk 1: Hitachi HDT725050ULA360
Fixed Disk 2: Hitachi HDT725050ULA360
USB 1.1: Intel Value SSD
Event Log messages, enter Setup to view
ERROR
0271: Check date and time settings
ERROR
0251: System CMOS checksum bad - Default configuration used
Press <F1> to resume, <DEL> to Setup
```

Figure 1: Error Messages

The user is notified that there is an error in the date and time settings, and that the System CMOS checksum is bad. These are the symptoms of a depleted battery.

Also, the user is prompted to choose between pressing the <F1> key to resume booting (with the wrong date and default settings) or to press the key to go in BIOS and re-do the custom settings and the date/time. You must choose .

After BIOS setup, press F10 to save the new BIOS configuration and exit. The unit will continue to boot and will work without any problems, until the unit is powered off and the power cords are unplugged. To prevent any problems, it is necessary to replace the motherboard battery before powering off the unit, as shown below.

3 When and How to Replace a Motherboard Battery

The motherboard battery can be replaced as preventive maintenance (it is recommended that this is done once every 5 years), or it can be done after the depletion is observed.

To replace an X7SBE motherboard battery (that is defective/depleted or as a preventive maintenance), do the following:

- Unplug the unit from the AC power.
- Place the unit on a EDS safe table where you can perform this operation.
- Open the unit lid by removing the six screws that hold it in place.
- Locate the battery on the motherboard. It is close to the South Bridge (Figure 2).

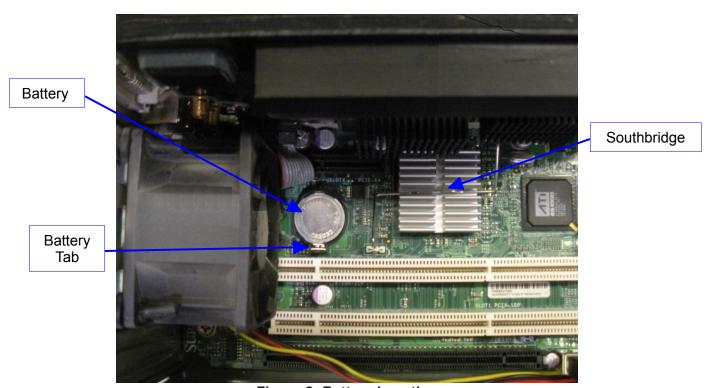


Figure 2: Battery Location

- For a DCP-2000: Remove the Dolphin Tunnel (DPT). The battery is under the Dolphin Tunnel. To do that, you must remove the two plastic rivets and the screw on the motherboard that holds it in place.
- For a DCP-2K4: Remove the DPT. The battery is under the Dolphin Tunnel. To do that, you
 must remove the two plastic rivets, one screw that attaches the DPT to the rear panel, and
 the screw on the motherboard that holds it in place.
- For a Showvault-3 and ShowVault-4: There is no Dolphin Tunnel, so go to the next step.
- Using a flat thin screwdriver, push the battery socket tab towards the socket margin, until the battery is released and pushed upwards.
- Pick up the battery by hand. Do not use tweezers.

- Put the new battery with the plus sign upwards. Insert first the side that is opposite to the tab side. Then push the battery on the tab side, until you hear a click, which indicates that the battery is latched by the tab. See Figure 3.
- Note: Always use the same battery type as indicated by the manufacturer, which is CR2032.

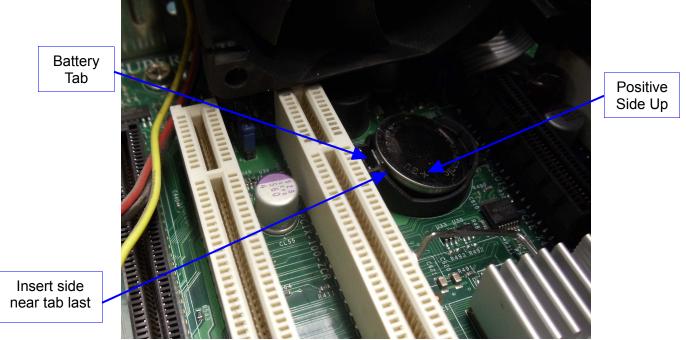


Figure 3: Battery Removal

- Place the DPT back and secure it using the two plastic rivets and the original screws.
- Close the unit lid using all of the screws that were removed at an earlier step.
- Connect all cables to the unit and turn unit on.
- While booting, press key repeatedly to go into BIOS.
- Set the Date and Time using the current GMT date and time.
 - Note: The Doremi default configured servers have the BIOS configuration with correct Boot Order set, so no other BIOS configuration is needed.
- Press F10 to save the new BIOS configuration and exit BIOS configuration.

The unit will start booting and is now ready to work again in the system. You have now completed this procedure.

4 Document Revision History

Date	Version	Description
09/05/2012	1.0	First version.
09/13/2012	1.1	Minor revisions made.